

CLAIMS

1. An oven for cooking food, the oven comprising:

5 - an enclosure (2) for receiving the food to be heated and for containing a cooking atmosphere, the enclosure (2) comprising two horizontal walls forming respectively a bottom wall (9) and a top wall (10), interconnected by at least two vertical side walls (7, 8), the enclosure (2) being closed by at least one door (5) that 10 is likewise vertical, and communicating with the outside via an exhaust opening (28) for exhausting gas inside the enclosure (2) and at a pressure above atmospheric pressure; and

15 - a heater device (11) for heating the cooking atmosphere;

the oven being characterized by the fact that it comprises:

20 - a regulation chamber (33), filled at least in part with a liquid of volume adapted to vary between a high level and a low level, the regulation chamber (33) communicating with the enclosure via an air inlet (44); and

25 - an admission duct (45) which extends between a high end and a low end, the high end opening out outside the regulation chamber (33) and the enclosure (2), and the low end being closed by the liquid when the level of the liquid corresponds substantially to its high level.

30 2. An oven according to claim 1, including an evacuation chamber (32) filled at least in part with a liquid of volume that is adapted to vary between a high level and a low level, said evacuation chamber (32) communicating with the regulation chamber (33).

3. An oven according to claim 2, including an

evacuation tube (38) extending between the exhaust opening (28) and a high end (39) opening out into the evacuation chamber (32) above the high and low liquid levels.

4. An oven according to claim 3, including a chimney (40) extending between a first end (41) communicating with the outside of the evacuation chamber (32) and a second end (42) coming over the high level of the liquid, said second end allowing gas under positive pressure to escape from the enclosure (2) via the evacuation tube (38).

5. An oven according to any one of claims 2 to 4, including a regulator (31) itself comprising the regulation chamber (33) and the evacuation chamber (32), these two chambers (32, 33) constituting volumes that are separated from each other at least in part and that communicate with each other via a narrow passage (51) adapted to allow the liquid to flow between these two chambers (32, 33).

15 6. An oven according to any one of claims 2 to 5, including, in the evacuation chamber (32), a first temperature probe (46) for measuring the temperature of the gas coming from the exhaust opening (28), and in the regulation chamber (33), a second temperature probe (47) for measuring the temperature of the gas coming into the enclosure (2) via the air inlet (44).

25 7. An oven according to any one of claims 2 to 6, comprising in the evacuation chamber (32), a first temperature probe (46) for measuring the temperature of the gas coming from the exhaust opening (28), and a second temperature probe (47) placed below the low level of the liquid in the evacuation chamber (32).

30 8. An oven according to claim 6 or claim 7, including calculation means (48) for determining the

relative humidity in the oven (1) as a function of the temperatures measured by the first and second probes (46 and 47).

9. An oven according to any preceding claim,
5 including a fan (12) disposed inside the enclosure (2) to stir the cooking atmosphere heated by the heater device (11), said fan (12) creating a suction zone inside the enclosure (2), the air inlet (44) being situated substantially in the suction zone of the fan (12).

10 10. An oven according to any preceding claim, including vapour-producing means (30) suitable for delivering water vapour into the enclosure (2).

11. An oven according to any preceding claim, in which the exhaust opening (28) for exhausting gas under positive pressure inside the enclosure (2) is situated beneath the heater device (11).
15

12. An oven according to any preceding claim, in which the exhaust opening (28) opens out substantially in the lowest point of the bottom wall (9).

20 13. An oven according to any preceding claim, in which the exhaust opening (28) communicates with a siphon (29) adapted to evacuate liquids and condensates from the enclosure (2) while preventing cold air from rising into the enclosure (2).

25 14. Oven for cooking food, comprising:

- an enclosure (2) for receiving the food to be heated and for containing a cooking atmosphere, this enclosure (2) comprising two horizontal walls (9, 10), respectively forming a bottom wall (9) and a top wall (10),
30 interconnected by at least two vertical side walls (8), this enclosure (2) being closed by at least one door (5) which is also vertical, and communicating with the outside by means

of an evacuation aperture (28) for gases under positive pressure in the enclosure (2),

characterised in that it comprises a first temperature probe (46) to measure the temperature of the gases issuing from the 5 evacuation aperture (28).

15. The oven according to claim 14, comprising calculating means (48) of calculating the humidity rates in the oven (1) as a function of the temperature measured at the first (46) probe.

10 16. The oven according to claim 15, comprising a second temperature probe (47) to measure a reference temperature.

15 17. The oven according to claim 16, wherein the humidity rates in the oven (1) is calculated by the calculating means (48) as a function of the temperature measured at the first (46) and second (47) probes.

18. The oven according to any one of claims 14 to 17, comprising:

20 - a heater (11) for heating the cooking atmosphere,
- a fan (12), located in the interior of the enclosure (2), to stir the cooking atmosphere heated by the heater (11), this fan (12) creating an area of low pressure in the enclosure (2), and

25 - an air inlet (44) opening in the enclosure (2), approximately in said low-pressure area of the fan (12).

19. The oven according to claim 18, comprising a regulation chamber (33), at least partially filled with a liquid of which the volume is adjusted so as to vary between a high level and a low level, this regulation chamber (33) 30 communicating with the air inlet (44).

20. The oven according to claim 19, comprising an admission duct (45) which extends between a high end and a

low end, the high end opening outside the regulation chamber (33) and the enclosure (2), and the low end being covered by the liquid when the level of the liquid corresponds approximately to its high level.

5 21. The oven according to any one of claims 19 and 20, comprising an evacuation chamber (32), at least partially filled with a liquid of volume adapted to vary between the high level and the low level, this evacuation chamber (32) communicating with the regulation chamber (33).

10 22. The oven according to claim 21, comprising a regulator box (31), itself comprising the regulation chamber (33) and the evacuation chamber (32), these two chambers (33, 32) constituting volumes which are at least partially separated from one another, communicating between one 15 another by means of a narrow passage (51), adapted to allow the liquid to flow between these two chambers (32, 33).

20 23. The oven according to any one of claims 21 and 22, comprising an evacuation tube (38) extending between the evacuation aperture (28) and a high end (39), opening into the evacuation chamber (32) above the high and low levels of the liquid.

25 24. The oven according to claim 23, comprising a chimney (40) extending between a first end (41) communicating with the outside of the evacuation chamber (32) and a second end (42) coming over the high level of the liquid, this second end (42) allowing the gases under positive pressure in the enclosure (2) to escape via the evacuation tube (38).

30 25. The oven according to any one of claims 22 to 24, wherein the second temperature probe (47) is located beneath the low level of the liquid in the regulation box (31).

26. The oven according to any one of claims 21 to

25, wherein the first temperature probe (46) is located above the high level of the liquid in the evacuation chamber (32).

27. The oven according to any one of claims 14 to 26,
5 comprising means for the production of steam (30), arranged to supply steam in the enclosure (2).

28. An oven for cooking food, comprising:

- an enclosure (2) for receiving the food to be heated and containing a cooking atmosphere, this enclosure (2) comprising two horizontal walls (9, 10), respectively forming a bottom wall and a top wall, connected by at least two vertical side walls (8), this enclosure being closed by at least one door (5) which is also vertical, and communicating with the outside by means of an evacuation 15 aperture (28) for gases under positive pressure in the enclosure (2), and

- a heater device (11) for heating the cooking atmosphere, characterised in that the evacuation aperture (28) for gases under positive pressure in the enclosure (2) 20 is located beneath the heater device (11).

29. The oven according to claim 28, in which the evacuation aperture (28) opens at the level of the point which is approximately the lowest point of the bottom wall (9).

25 30. The oven according to any one of claims 28 and 29, in which the evacuation aperture (28) communicates with a siphon (29) arranged to evacuate liquids and condensates from the enclosure (2) while avoiding cool air upwelling in the enclosure (2).

30 31. The oven according to any one of claims 28 to 30, comprising means (30) for the production of steam, designed to provide steam in the enclosure (2).

32. The oven according to any one of claims 28 to 31, comprising a fan (12), located in the interior of the enclosure (2), to stir the cooking atmosphere heated by the heater device (11), this fan (12) creating an area of low pressure in the enclosure (2).

5 33. The oven according to claim 32, comprising an air inlet (44) in the enclosure (2), located approximately in said area of low pressure of the fan (12).

10 34. The oven according to claim 33, comprising a regulation chamber (33), filled at least in part by liquid of which the volume is adjusted so as to vary between a high level and a low level, this regulation chamber (33) communicating with the air inlet (44).

15 35. The oven according to claim 34, comprising an admission duct (45) which extends between a high end and a low end, the high end opening outside the regulation chamber (33) and the enclosure (2), and the low end being covered by the liquid when the level of the liquid corresponds approximately to its high level.

20 36. The oven according to any one of claims 34 and 35, comprising an evacuation chamber (32), filled at least in part by a liquid of which the volume is adjusted so as to vary between the high level and the low level, this evacuation chamber (32) communicating with the regulation chamber (32).

25 37. The oven according to claim 36, comprising a regulation box (31), itself comprising the regulation chamber (33) and the evacuation chamber (32), these two chambers (33, 32) constituting volumes which are at least partially separated from one another, communicating between one another by means of a narrow passage (51), adapted to allow the liquid to flow between these chambers (32, 33).

38. The oven according to any one of claims 36 and 37, comprising an evacuation tube (38) extending between the evacuation aperture (28) and a high end (39), opening into the evacuation chamber (32) above the high level of the liquid.

39. The oven according to claim 38, comprising a chimney (40) extending between a first end (41) communicating with the outside of the evacuation chamber (32) and a second end (42) coming over the high level of the liquid, this second end (42) allowing the gases under positive pressure in the enclosure (2) to escape via the evacuation tube (38).

40. The oven according to any one of claims 36 to 39, comprising a first temperature probe (46) to measure the temperature of the gases issuing from the evacuation aperture (28), and a second temperature probe (47) located beneath the low level of the liquid in the evacuation chamber (32).

41. The oven according to any one of claims 33 to 39, comprising a first temperature probe (46) to measure the temperature of the gases issuing from the evacuation aperture (28); and a second temperature probe (47) to measure the temperature of the gases entering the enclosure (2) via the air inlet (44).

42. The oven according to any one of claims 40 and 41, comprising calculating means (48) of calculating the humidity rates in the oven (1) as a function of the temperatures measured at the first (46) and second (47) probes.

43. An oven for cooking food, comprising an enclosure (2) for receiving and heating the food in a moist cooking atmosphere,

characterised by the fact that it comprises:

- a water column (49), containing a predetermined

volume of water and maintained constant between a maximum level and a low outlet (55) through which the water flows in the column (49), and

5 - a diffuser (50) designed to receive the water flowing from the low outlet (55) and to vaporize at least part of this water.

44. The oven according to claim 43, in which the water column (49) is located outside the enclosure (2) and the diffuser (50) is located in the enclosure (2).

10 45. The oven according to any one of claims 43 and 44, in which the diffuser (50) is an electric heating device.

15 46. The oven according to any one of claims 43 and 44, in which the diffuser (50) is heated by the heat produced by a gas burner (11).

20 47. The oven according to any one of claims 43 to 46, in which the diffuser (50) rotates about a rotation axis (21) of a fan (12) designed to stir, inside the enclosure (2), the steam produced by the diffuser (50), this fan (12) creating an area of low pressure in the enclosure (2).

48. The oven according to claim 47, in which the diffuser (50) is a disk rotating about the rotation axis (21).

25 49. The oven according to any one of claims 47 and 48, comprising an air inlet (44) in the enclosure (2), located approximately in the area of low pressure of the fan (12).

30 50. The oven according to claim 49, comprising a regulation chamber (33), communicating with the air inlet (44) of the enclosure (2), filled at least in part with water deriving from an overflow (54) of the column (49), the volume of which is adjusted so as to vary between a high

level and a low level.

5 51. The oven according to claim 50, comprising an admission duct (45) which extends between a high end and a low end, the high end opening outside the regulation chamber (33) and the enclosure (2), and the low end being covered by water, when the level of the water corresponds approximately to its high level.

10 52. The oven according to any one of claims 50 and 51, comprising an evacuation chamber (32), filled at least in part with water deriving from an overflow (54) of the column (49), the volume of which is adjusted so as to vary between the high level and the low level, this evacuation chamber (32) communicating with the regulation chamber (33).

15 53. The oven according to claim 52, comprising an evacuation tube (38) extending between the enclosure (2), with which it communicates, and a high end (39) opening into the evacuation chamber (32) above the high level of the water.

20 54. The oven according to claim 53, comprising a chimney (40) extending between a first end (41) communicating with the outside of the evacuation chamber (32) and a second end (42) entering above the high level of the water, this second end allowing the gas under positive pressure in the enclosure (2) to escape via the evacuation tube (38).

25 55. The oven according to any one of claims 50 to 54, comprising a regulation box (31), itself comprising the regulation chamber (33) and the evacuation chamber (32), these two chambers (33, 32) constituting volumes which are at least partially separated from one another, communicating between one another by means of a narrow passage (51), designed such as to allow the liquid to flow between these

chambers (32, 33).

56. The oven according to any one of claims 43 to 55, comprising, between the maximum level of water in the column (49) and the low outlet, a cooling circuit (56) extending to the level of at least a part of a top wall (10), in such a way as to cool the latter at least partially, and to favour the condensation above the food of at least a part of the water vapour contained in the moist atmosphere of the enclosure (2).

10 57. The oven according to any one of claims 43 to 56, in which the maximum level and the low outlet (55) feature a difference in height corresponding to a water pressure at the low outlet (55) of between 5 and 30 mbar.

58. An oven for cooking food, comprising:

15 - an enclosure (2) for receiving and heating the food in a moist cooking atmosphere, this enclosure (2) comprising a top wall (10) arranged above the food which is to be heated,

20 - a heater device (11) arranged in the interior of the enclosure (2), and

25 - a fan (12), likewise arranged inside the enclosure (2), this fan (12) comprising at least one rotating blade (22), rotating about a rotation axis (21) on a circular trajectory in order to stir the cooking atmosphere heated by the heater device (11),

characterised in that it further comprises:

- a diffuser disk (50), located in the enclosure (2), rotating on the rotation axis (21) integrally with the fan (12), and

30 - a water supply (34), conducting water from the outside of the enclosure (2) to the vicinity of the diffuser disk (50), in such a way that the water falls onto the

diffuser disk (50) and is at least in part evaporated thanks to the heat produced by the heater device (11).

5. 59. The oven according to claim 58, in which the diffuser disk (50) is located in the central space (23) located inside the circular trajectory.

60. The oven according to claim 59, in which the heater device (11) is arranged opposite the diffuser disk (50) and heats it, in order to evaporate at least a part of the water which is falling onto it.

10 61. The oven according to any one of claims 58 to 60, in which the heater device (11) is a gas burner.

15 62. The oven according to any one of claims 58 to 61, in which the water supply (34) comprises a water column (49), containing a predetermined volume of water which is maintained constant between a maximum level and a low outlet (55) through which the water flows onto the diffuser disk (50).

20 63. The oven according to any one of claims 58 to 62, in which the diffuser disk (50) rotates at a speed of rotation adjusted such that the water falling onto it is at least in part projected onto the roof (10).

64. An oven for cooking food, comprising:

25 - an enclosure (2) for receiving the food to be heated, this enclosure (2) comprising two horizontal walls (9, 10), respectively forming a bottom wall and a top wall, connected by at least two vertical side walls (8), this enclosure (2) being closed by at least one door (5) which is also vertical, and

30 - a fan (12) arranged in the interior of the enclosure (2) comprising at least one rotating blade (22), rotating about a rotation axis (21) on a circular trajectory, characterised in that it further comprises:

5 - a feed system for detergent (49), conducting the detergent from outside the enclosure (2) to the vicinity of the fan (12) in such a way that some detergent falls onto the fan (12) and is projected by the latter onto each of the walls (5, 7, 8, 9, 10) of the enclosure (2).

10 65. The oven according to claim 64, comprising a diffuser (50, 57) rotating with the fan (12) about the rotation axis (21), the feed system for the detergent (49) conducting detergent to the diffuser (50), in such a way that the diffuser (50, 57), rotating, projects detergent in the direction of the walls (5, 7, 8, 9, 10) of the enclosure (2).

15 66. The oven according to claim 65, wherein the diffuser (50) is a disk of which the axis of circular symmetry coincides with the rotation axis (21) of the fan (12).

20 67. The oven according to claim 65, wherein the feed system for the detergent (49) conducts detergent into a diffuser (57) consisting of a cylinder having a cylindrical wall (58) with a cylindrical axis of symmetry coinciding with the rotation axis (21) of the fan (12), this wall (58) being pierced by orifices designed to allow detergent to pass radially to the outside of the cylinder, to the walls (5, 7, 8, 9, 10) of the enclosure (2).

25 68. The oven according to any one of claims 64 to 67, wherein the feed system for the detergent (49) comprises a receptacle (65) designed for receiving detergent in such a way that some detergent is diluted with a liquid supplied above the receptacle (65) and liquid in which the detergent is diluted flows downstream of the receptacle (65) in the feed system for the detergent (49).

30 69. An oven for cooking food, comprising:

- an enclosure (2) for receiving and heating the food

in a moist cooking atmosphere, this enclosure (2) comprising a top wall (10) arranged above the food to be heated, and

- means to generate steam (50, 57) in the interior of the enclosure (2),

5 characterised by the fact that it further comprises means of cooling (56) the top wall (10).

70. The oven according to claim 69, in which the means of cooling (56) consist of a circuit in which a liquid circulates, this circuit being in thermal contact with the
10 top wall (10).

71. The oven according to claim 70, in which the liquid is water, which flows, downstream of the circuit (56), through a low outlet (55) onto a diffuser (50, 57) intended to produce vapour in the enclosure (2).

15 72. The oven according to claim 71, comprising a water column (49) located upstream of the circuit (56) and containing a predetermined volume of water maintained constant between the low outlet (55) and a maximum level (54).

20 73. The oven according to claim 72, comprising a water column (49) located downstream of the circuit (56) and containing a predetermined volume of water maintained constant between the low outlet (55) and a maximum level (54).

25 74. Oven for cooking food, comprising:

- an enclosure (2) for receiving and heating the food in a cooking atmosphere, this enclosure including two horizontal walls forming, respectively, a bottom wall (9) and a top wall (10) that are connected by at least two lateral vertical walls and this enclosure being closed by at
30 least one door;

- a fan (12), arranged inside the enclosure (2) on

one of the walls of this enclosure (2), this fan (12) including at least one blade (22) rotating about a rotation axis (21) on a circular trajectory in order to stir the cooking atmosphere; and

5 - an air inlet (44) opening out substantially behind the fan (12), on the wall of the enclosure (2) on which the fan (12) is mounted;

characterized in that each blade (22) is connected to the rotation axis (21) in a suitable manner so that the air from
10 the air inlet (44) penetrates directly inside the circular trajectory of each blade (22) before being expelled into the remainder of the volume (25) of the enclosure (2).

75. Oven according to claim 74, in which the blades are connected to the rotation axis by a disk (20) that
15 includes at least one hole (73), located on a circular trajectory, the radius of which is substantially equal to the distance separating, on the wall of the enclosure (2) on which the fan (12) is mounted, the rotation axis (21) and the air inlet (44).

20 76. Oven according to claim 75, in which the openings corresponding respectively to the air inlet (44) and to each hole (73) are substantially circular and have identical diameters.

77. Oven according to claims 75 and 76, in which the
25 holes (93) have a diameter substantially equal to 30 mm.

78. Oven according to one of claims 75 to 77, in which the blades (22) consist of planar rectangular lamellae extending in a plane substantially perpendicular to the disk (20) and passing through the rotation axis (21), and each
30 lamella is connected to the disk (20) by a first edge (70) and by a second edge (72) opposite said first edge (70) to a circular ring (71) centred on the rotation axis (21) and

extending in a plane parallel to the disk (20).

79. Oven according to one of claims 74 to 78, in which the disk (20) includes six holes (73) regularly distributed angularly about the rotation axis (21).

5

80. Oven for cooking food, comprising:

- an enclosure (2) for receiving the food to be heated, this enclosure (2) having two horizontal walls, one forming a bottom wall (9) and the other forming a top wall (10), connected by at least two vertical side walls (8a, 10b), this enclosure (2) being closed by at least one door (5), also vertical and comprising a window to give the possibility of seeing into the enclosure (2), and

- means generating an acoustic signal (74) to indicate the end of a heating process,

15

characterized in that it further comprises illuminating means (80, 81) designed to produce, within the enclosure (2), light characteristic of the end of the heating process when said heating process is finished.

20

81. Oven according to claim 80, in which the characteristic light is a coloured light.

82. Oven according to one of claims 80 and 81, in which the intensity of the light varies back and forth when the said heating process is over.

25

83. Oven according to one of claims 80 to 82, in which the illuminating means (80, 81) are mounted on the door (5).

30

84. Oven according to claim 83, in which the door (5) has an insulating space (78) at least partially thermally insulated from the enclosure (2) and in which the illuminating means (80, 81) are mounted in the insulating space (78).

85. Oven according to claim 84, in which the

insulating space (78) comprises two glazed panels (75, 76), an inner panel (75) and an outer panel (76), the outer panel (76) having a transparent region facing a transparent region of the inner panel (75), to form the said window, and these 5 two panels being housed in a frame (77) in which the illuminating means (80, 81) are mounted.

86. Oven according to one of claims 80 to 85, in which the back and forth variation in the intensity of the light consists in a flashing.

10 87. Oven according to one of claims 80 to 86, comprising slideways (14) for arranging trays (26) superposed heightwise in the oven (1) and in which the illuminating means (80, 81) are spread out heightwise.

15 88. Oven according to one of claims 80 to 87, in which the inner panel (75) forms, facing the cavity (2), a smooth wall.

89. Oven for cooking food, comprising an enclosure (2) for receiving and heating food and which contains a cooking atmosphere, this oven comprising:

20 - a fan (12) to stir the cooking atmosphere,
- an electrical motor (M, M') for driving the fan (12) in rotation alternatively in the clockwise and in the anti-clockwise direction, this motor (M, M') comprising a main winding (88), and

25 - first switching means (K1) adapted for reversing the direction of rotation of the electrical motor (M, M'), characterized in that:

30 - the main winding (88) is supplied by a source (90) of electrical alternating current with a determined period, and

- it further comprises second switching means (K2) adapted to disconnect the main winding (88) from the source

(90) of alternating current, during a braking phase (F), in the course of at least part of at least one of the two alternations (P,N) of each period of the electrical alternating current.

5 90. Oven according to claim 1, wherein the second switching means (K2) are adapted to disconnect the main winding from the source (90) of alternating current, during the braking phase (F), in the course of the positive alternations (P) or in the course of the negative 10 alternations (N) of the electrical alternating current.

15 91. Oven according to claim 89, wherein the second switching means (K2) are adapted to disconnect the main winding (88) from the source (90) of alternating current, during the braking phase (F), in the course of the negative alternations (N) and part of the positive alternations (P) of the electrical alternating current or in the course of the positive alternations (P) and part of the negative alternations (N) of the electrical alternating current.

20 92. Oven according to one of claims 89 to 91, wherein the second switching means (K2) are adapted to connect the main winding (88) to the source (90) of alternating current, during a driving phase (E), in the course of the positive alternations (P) and at least part of the negative alternations (N) of the electrical alternating 25 current or in the course of the negative alternations (N) and at least part of the positive alternations (P) of the electrical alternating current.

30 93. Oven according to one of the preceding claims, wherein the motor (M,M') incorporates a secondary winding (89) and the first switching means (K1) are adapted to reverse the direction of current respectively in the main (88) and secondary winding (89) before the braking phase

(F).

94. Oven according to one of the preceding claims, wherein the second switching means (K2) are adapted to disconnect the main winding (88) from the source (90) of alternating current, during a resting phase (R) immediately following the braking phase (F).

95. Process for controlling the cooking of food in an oven (1), wherein:

- the cooking atmosphere in the oven (1) is stirred up thanks to a fan (12) driven by an electric motor (M, M1) with a main winding (88),

- with the help of the first switching means (K1), the direction of rotation of the electric motor (M, M1) is reversed in order to drive the fan (12) in rotation alternatively in the clockwise direction and in the anti-clockwise direction,

characterized in that :

- the main winding (88) is supplied by a source (90) of alternating current with a pre-defined period, and

- during a braking phase, the main winding (88) is disconnected from the source (90) of alternating current during part of at least the two alternations (N, P) of each period of the electrical alternating current.

96. Process according to claim 95, wherein the main winding (88) is disconnected from the source (90) of alternating current, during the braking phase (F), in the course of the positive alternation (P) or in the course of the negative alternations (N) of the electrical alternating current.

97. Process according to claim 95, wherein the main winding (88) is disconnected from the source (90) of alternating current, during the braking phase (F), in the

course of the negative alternations (N) and part of the positive alternations (P) of the electrical alternating current or in the course of the positive alternations (P) and part of the negative alternations (N) of the electrical 5 alternating current.

98. Process according to claims 95 to 97, wherein the main winding (88) is connected to the source (90) of alternating current, during a driving phase (E), in the course of the positive alternations (P) and at least part of 10 the negative alternations (N) of the electrical alternating current or in the course of the negative alternations (N) and at least part of the positive alternations (P) of the electrical alternating current.

99. Process according to one of the claims 95 to 98, 15 wherein the motor (M, M') incorporates a secondary winding (89) and the direction of the current respectively in the main winding (88) and in the secondary winding (89) is reversed before the braking phase (F).

100. Process according to one of the claims 95 to 20 99, wherein the main winding (88) is disconnected from the source (90) of alternating current, during a resting phase (R) immediately following the braking phase (F).